

REMARKS

This is responsive to the outstanding Office Action. Claims 1-28, 30-54 are pending in the present application. Claims 1-28 and 30-54 are rejected.

For the reasons set forth fully below, Applicant respectfully submits that the claims as presented are allowable. Consequently, reconsideration, allowance, and passage to issue are respectfully requested.

Applicant includes a Petition for Extension of Time to extend the deadline for filing a response until May 1, 2008.

CLAIM REJECTIONS - 35 USC §103(a)

The Examiner has objected that claims 1-28 and 30-54 are unpatentable over Moskowicz et al. '569 in view of Shur '672. In particular, the Examiner considers that Moskowicz et al. '569 (col 6, lines 9-54) discloses "storing the watermark in the state of the software object so that the watermark becomes detectable by a computerized recognizer which examines the state of the software object when the software is being run with the input sequence" as set forth in claim 1.

Applicant respectfully disagrees. As set forth in the response filed by Applicant on July 24, 2007, "state" may be defined as:

"The values assumed at a given instant by the variables that define the characteristics of the system, component or installation."

This is described in the instant specification at page 9 lines 32-35: "The watermark W is embedded, not in the static structure of the program, its code (Unix text segment), its static data (Unix initialised data segment), or its type information (Unix symbol segment or Java's Constant Pool), but rather in the state of the program as it is being run with a particular input sequence I".

By complete contrast, in Moskowitz et al. '569 (col 5 lines 20-22) "... what is needed to realize the present invention is the presence of certain data resources of a type which are amenable to the 'stega-cipher' process [for embedding watermarks]".

And at col 5 lines 41-50 "When code and data resources are compiled and assembled into a precursor of an executable program the next step is to use a utility application for final assembly of the executable application. The programmer marks several essential code resources in a list displayed by the utility. The utility will choose one or several essential code resources, and encode them into one or several data resources using the stegacipher process. The end result will be that these essential code resources are not stored in their own partition, but rather stored as encoded information in data resources. They are not accessible at run-time without the key."

Although reference is made to the generating the decoding key to access the essential resources at run-time, the encoded essential code resources are stored in the static structure of the software. There is no disclosure, teaching or suggestion that a watermark is embedded in the state of a program.

Thus the present invention as defined in claim 1 allows a watermark to be embedded in the state of the software object (as opposed to the traditional watermarking methods, where the watermark is embedded in the code, data, or other static representations or resources of the software or media object). This causes a watermark to be expressed in the state of the software object and, as defined in claim 1, is only detectable by examination by a recognizer when the software object is being run with the input sequence. Accordingly an adversary will be at a significant disadvantage over the present invention, when searching for a watermark, because the adversary will not be certain that the watermark is present in the current state of the software object.

In contrast, Moskowitz et al. '569 describes a system which specifies where the encoded data resource is located. (col 6 lines 18-20). Therefore, recognition or

extraction does not involve an examination step as claimed in claim 1 of the present application, since the location is known.

Shur '672 discloses a method of embedding a watermark by making imperceptible changes to a media signal, such as audio or video. Shur '672 does not disclose any method for embedding a watermark in the state of a program as it is being run.

Accordingly, Applicant respectfully submits that Moskowitz et al. '569 and Shur '672 cannot be combined to arrive at the invention as claimed in claim 1 of the present application. As claims 2-17 are dependant from claim 1, Applicant respectfully submits that Moskowitz et al. '569 and Shur '672 cannot be combined to arrive at the invention as claimed in claims 2-17.

Applicant also notes that the Examiner considers claims 18-28 and 30-54 to be parallel with and contain the same limitations as claims 1-17. Accordingly, for the reasons above, Applicant respectfully submits that Moskowitz et al. '569 and Shur '672 cannot be combined to arrive at the invention as claimed in claims 18-28 and 30-54.

In view of the above arguments, Applicant respectfully requests reconsideration and allowance of claims 1-28 and 30-54 as now presented.

CONCLUSION

Applicant's attorney believes that this application is in condition for allowance. Should any unresolved issues remain, Examiner is invited to call Applicant's attorney at the telephone number indicated below.

Respectfully submitted,

May 1, 2008

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